Claims

What is claimed is:

1. A method for implementing autonomous variation of media dismount time in a robotic media library comprising the steps of:

monitoring I/O requests to the robotic media library,

gathering performance statistics for said I/O requests to the robotic media library; and

periodically checking said gathered performance statistics to determine a change value needed for the media dismount time.

2. A method for implementing autonomous variation of media dismount time as recited in claim 1 wherein the step of monitoring I/O requests to the robotic media library includes the step of maintaining an I/O operations count.

3. A method for implementing autonomous variation of media dismount time as recited in claim 1 wherein the step of gathering performance statistics includes the steps of maintaining a media hit count where a data storage medium (DSM) for said I/O request is in a robotic media drive.

4. A method for implementing autonomous variation of media dismount time as recited in claim 3 includes the steps of maintaining a media near miss count where said DSM for said I/O request is in transit from said robotic media drive.

5. A method for implementing autonomous variation of media dismount time as recited in claim 2 wherein the step of periodically checking said gathered performance statistics to determine said change value needed for the media dismount time includes the step of identifying a first threshold number of I/O requests, checking said gathered performance statistics to determine if an increase is needed for the media dismount time.

6. A method for implementing autonomous variation of media dismount time as recited in claim 5 includes the step of determining said increase is needed for the media dismount time if the near miss count is greater than the hit count; or if a ratio of the near miss count and hit count is greater than a set value.

7. A method for implementing autonomous variation of media dismount time as recited in claim 5 includes the step of identifying a second threshold number of I/O requests, checking said gathered performance statistics to determine if a decrease is needed for the media dismount time.

8. A method for implementing autonomous variation of media dismount time as recited in claim 7 includes the step of determining said decrease is needed for the media dismount time if the near miss count is near zero, or if a ratio of the near miss count and hit count is less than another set value.

9. Apparatus for implementing autonomous variation of media dismount time in a robotic media library comprising:

a plurality of event counters;

a performance measurement media dismount time control program for monitoring I/O requests to the robotic media library, for controlling said event counters to maintain a count of I/O operations executed, a count of media hits where a data storage medium (DSM) for said I/O request is in a robotic media drive, and a count of media near misses where the DSM for said I/O request is in transit from said robotic media drive; and

said performance measurement media dismount time control program for periodically checking said counts of media hits and media near misses to determine a change value needed for the media dismount time.

10. Apparatus for implementing autonomous variation of media dismount time in a robotic media library as recited in claim 9 wherein said performance measurement media dismount time control program for periodically checking said counts includes said performance measurement media dismount time control program identifying a first threshold number of I/O requests, checking said counts of media hits and media near miss to determine if an increase is needed for the media dismount time.

11. Apparatus for implementing autonomous variation of media dismount time in a robotic media library as recited in claim 10 wherein said performance measurement media dismount time control program increases the media dismount time if the near miss count is greater than the hit count, or if a ratio of the near miss count and hit count is greater than a set value.

12. Apparatus for implementing autonomous variation of media dismount time in a robotic media library as recited in claim 10 wherein said performance measurement media dismount time control program for periodically checking said counts includes said performance measurement media dismount time control program identifying a second threshold number of I/O requests, checking said counts of media hits and media near miss to determine if a decrease is needed for the media dismount time.

13. Apparatus for implementing autonomous variation of media dismount time in a robotic media library as recited in claim 12 wherein said performance measurement media dismount time control program decreases the media dismount time if the near miss count is near zero, or if a ratio of the near miss count and hit count is less than a set value.

14. A computer program product for implementing autonomous variation of media dismount time in a robotic media library in a computer system, said computer program product including instructions executed by the computer system to cause the computer system to perform the steps of:

defining a set of event counters;

monitoring I/O requests to the robotic media library,

controlling said event counters to maintain a count of I/O operations executed, a count of media hits where a data storage medium (DSM) for said I/O request is in a robotic media drive, and a count of media near misses where the DSM for said I/O request is in transit from said robotic media drive; and

periodically checking said counts of media hits and media near misses to determine a change value needed for the media dismount time.

15. A computer program product for implementing autonomous variation of media dismount time as recited in claim 14 wherein the step of periodically checking said counts of media hits and media near misses to determine a change value needed for the media dismount time includes the steps of identifying a first threshold number of I/O requests, checking said counts of media hits and media near miss to determine if an increase is needed for the media dismount time.

16. A computer program product for implementing autonomous variation of media dismount time as recited in claim 15 wherein the step of checking said counts of media hits and media near miss to determine if an increase is needed for the media dismount time includes at least one step of checking if the near miss count is greater than the hit count or checking if a ratio of the near miss count and hit count is greater than a set value.

17. A computer program product for implementing autonomous variation of media dismount time as recited in claim 15 includes the steps of identifying a second threshold number of I/O requests, checking said counts of media hits and media near miss to determine if a decrease is needed for the media dismount time.

18. A computer program product for implementing autonomous variation of media dismount time as recited in claim 17 wherein the step of checking said counts of media hits and media near miss to determine if a decrease is needed for the media dismount time includes at least one step of checking if said near miss count is near zero or checking if a ratio of the near miss count and hit count is less than a set value.